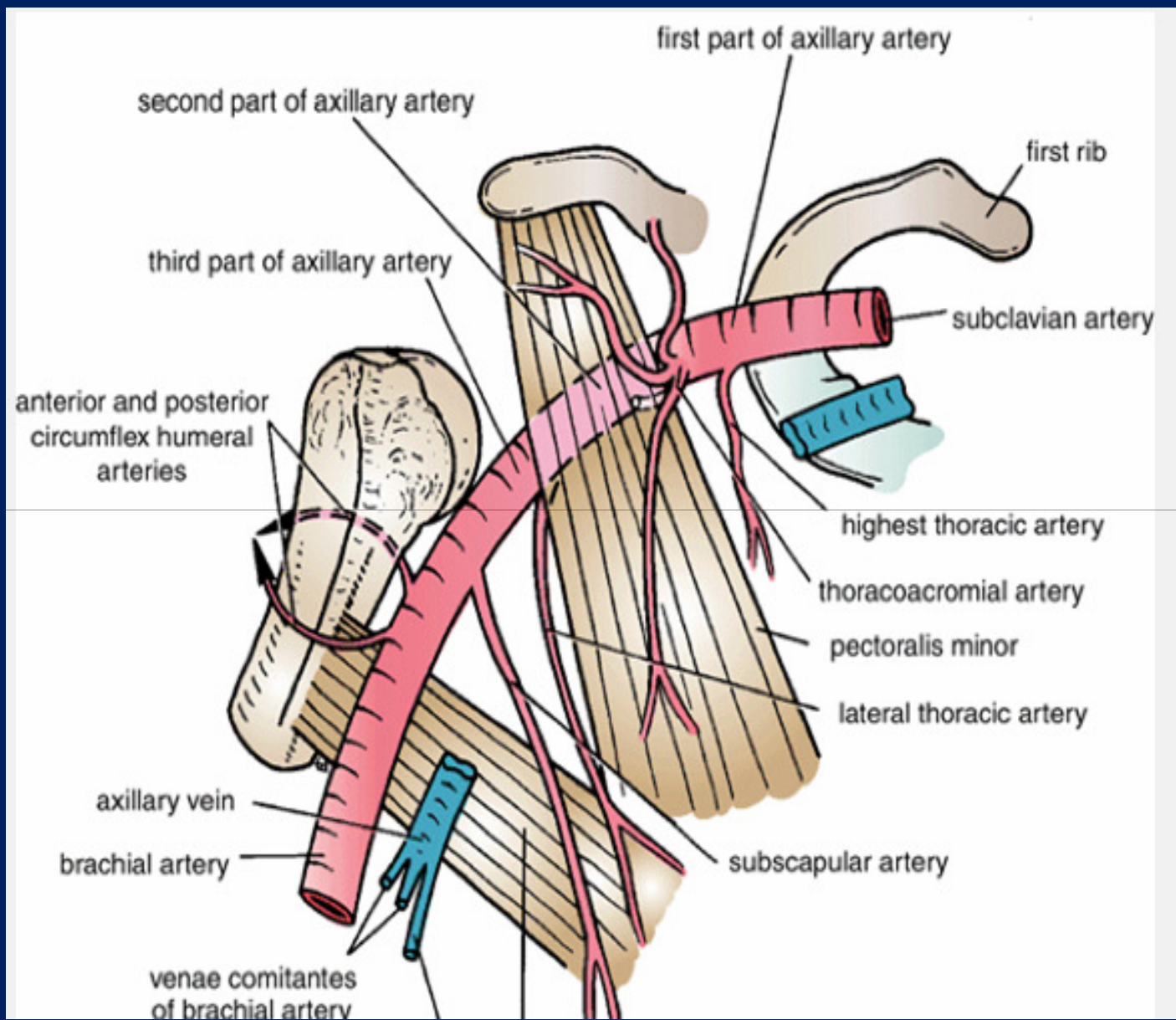




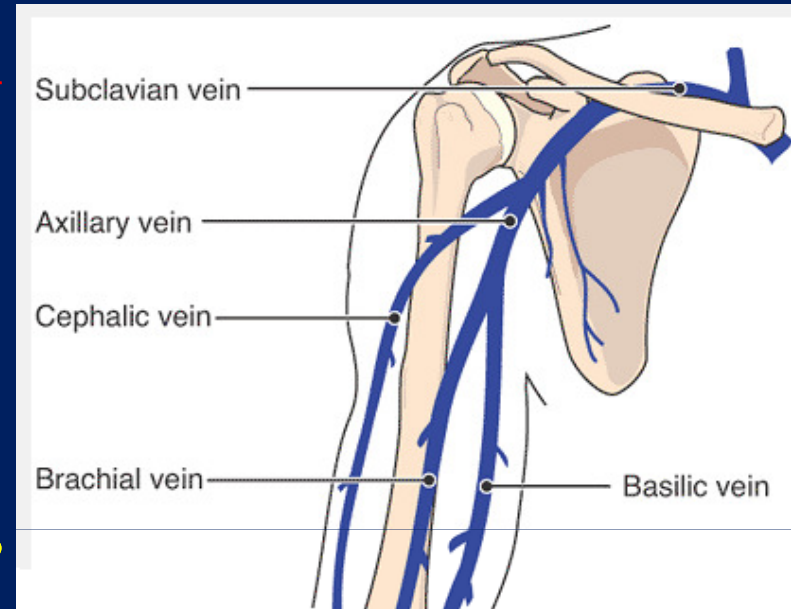
Contents of the Axilla

- **The axillary artery** begins at the lateral border of the first rib as a continuation of the **subclavian** and ends at the lower border of the teres major muscle, where it continues as the brachial artery. Throughout its course, the artery is closely related to the cords of the brachial plexus and their branches and is enclosed with them in a connective tissue sheath called the **axillary sheath**. If this sheath is traced upward into the root of the neck, it is seen to be continuous with the prevertebral fascia.



The axillary vein

- The axillary vein is formed at the lower border of the teres major muscle by the union of the **venae comitantes**

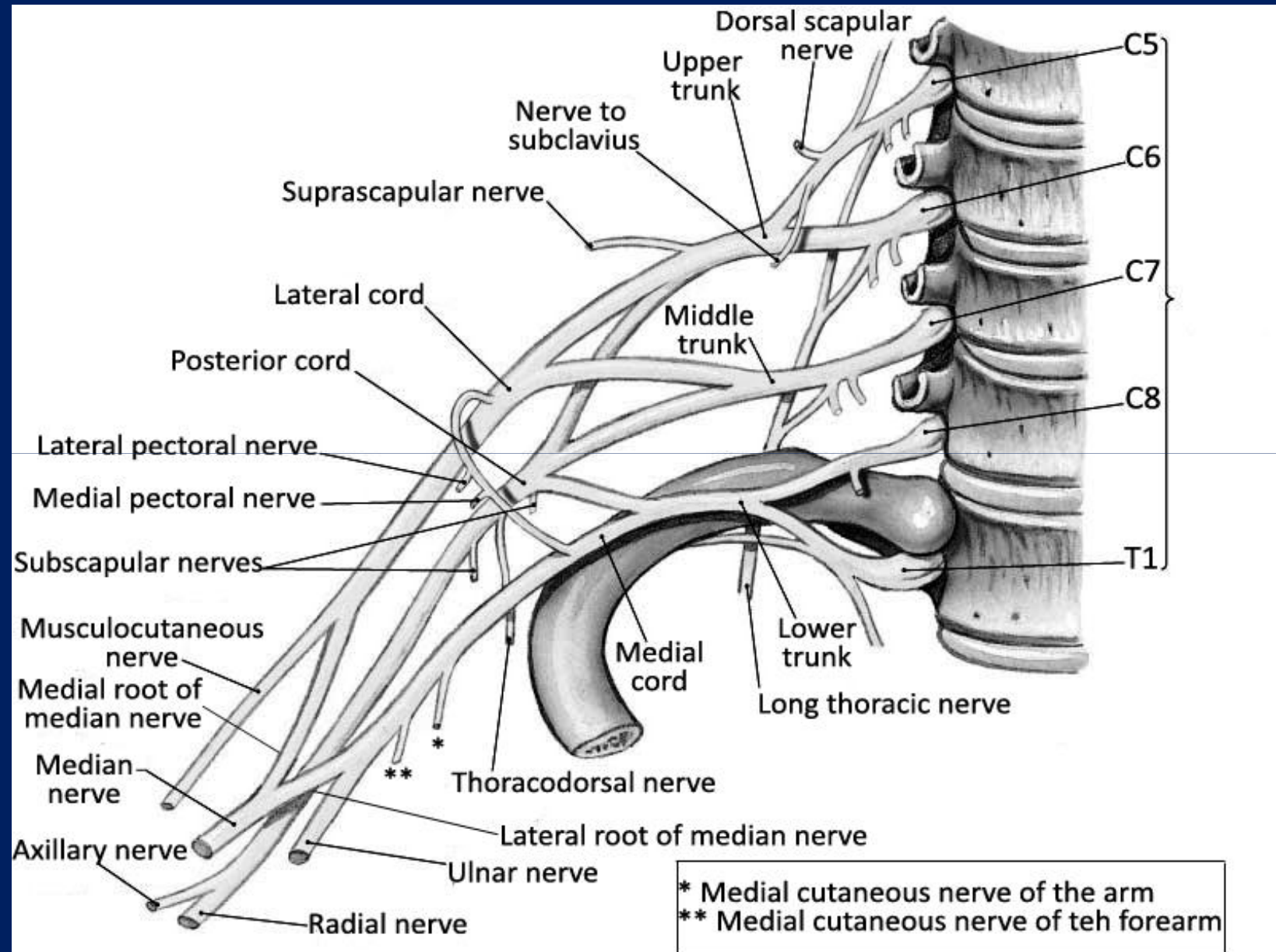


of the brachial artery and the **basilic** vein.

It runs upward on the medial side of the **axillary artery** and ends at the **lateral border** of **1st rib** by becoming the **subclavian** vein. The vein receives tributaries, which correspond to the branches of the axillary artery, and the cephalic vein.

Brachial Plexus

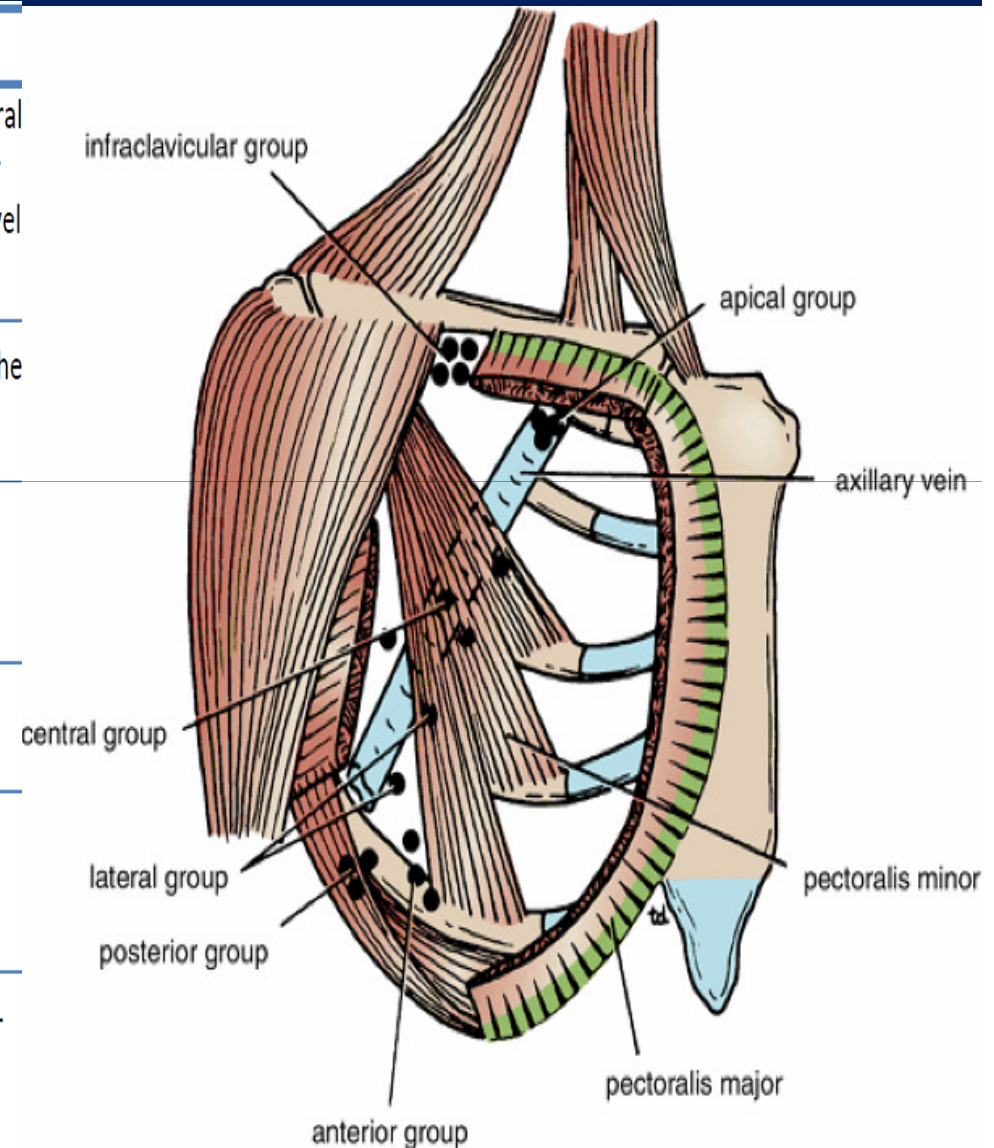
- Sensory innervation to the skin and deep structures, such as the joints;
- Motor innervation to the muscles;
- Influence over the diameters of the blood vessels by the sympathetic vasomotor nerves;
- Sympathetic secretomotor supply to the sweat glands.



| Branches of the brachial plexus | | | | |
|---------------------------------|---------------------|---------------------------------------|--|--|
| Source | Branch (nerve) | Root value | Structures supplied by the nerve | |
| Branches from the roots | Dorsal scapular | C5 | Levator scapulae, Rhomboid major & Rhomboid minor | |
| | Long thoracic | C5,C6,C7 | Serratus anterior | |
| Branches from the upper trunk | Suprascapular | C5,C6 | Supraspinatus, Infraspinatus + articular branches to the shoulder & acromioclavicular joints | |
| | Nerve to subclavius | C5,C6 | Subclavius & sternoclavicular joint | |
| Branches from the Cords | Lateral cord | Lateral pectoral | C5,C6,C7 | Pectoralis major |
| | | Musculocutaneous | C5,C6,C7 | Biceps, brachialis, Coracobrachialis & continues as the lateral cutaneous nerve of the forearm |
| | | Lateral root of the median nerve | C5,C6,C7 | Unites with the medial root to form the median nerve |
| | Medial cord | Medial pectoral | C8,T1 | Pectoralis major & minor |
| | | Medial cutaneous nerve of the arm | C8,T1,T2 | Skin of the lower ½ of the medial side of the arm |
| | | Medial cutaneous nerve of the forearm | C8,T1 | Skin of medial ½ of forearm |
| | | Ulnar | C7,C8,T1 | Skin & small muscles of the hand |
| | | Medial root of the median nerve | C8, T1 | Unites with the lateral root to form the median nerve |
| | Posterior cord | Upper subscapular | C5,C6 | Upper fibers of subscapularis |
| | | Lower subscapular | C5,C6 | Lower fibers of subscapularis , Teres major |
| | | Thoracodorsal | C6,C7,C8 | Latissimus dorsi |
| | | Axillary | C5,C6 | Deltoid, teres minor, shoulder joint and skin over the lower ½ of deltoid |
| | | Radial | C5 - T1 | Muscles & skin of the posterior aspect of the upper limb |

Lymph Nodes of the Axilla

| Group | Location | Afferent area |
|--|---|--|
| Anterior (Pectoral) | Along the lateral thoracic vein at the lower border of pectoralis minor | Most of the breast, anterolateral part of the chest & the anterior abdominal wall down to the level of (& including) the umbilicus |
| Posterior (Subscapular) | On the posterior axillary fold along the subscapular vein | The back down to the level of the iliac crest |
| Lateral (Humeral) | On the upper part of the humerus along the axillary vein | The whole upper limb except superficial vessels draining the lateral side |
| Central | In the center of the axilla in the axillary fat | Anterior, posterior & lateral groups |
| Infraclavicular (Deltopectoral) | Groove between deltoid & pectoralis major, outside the axilla | Superficial vessels draining the lateral side of the upper limb |
| Apical | At the apex of the axilla along the axillary vein, on the outer border of the first rib | Upper part of breast & all other groups |



Skin of Scapular Region

- The **sensory nerve** supply to the skin of the back is from the posterior rami of the spinal nerves.

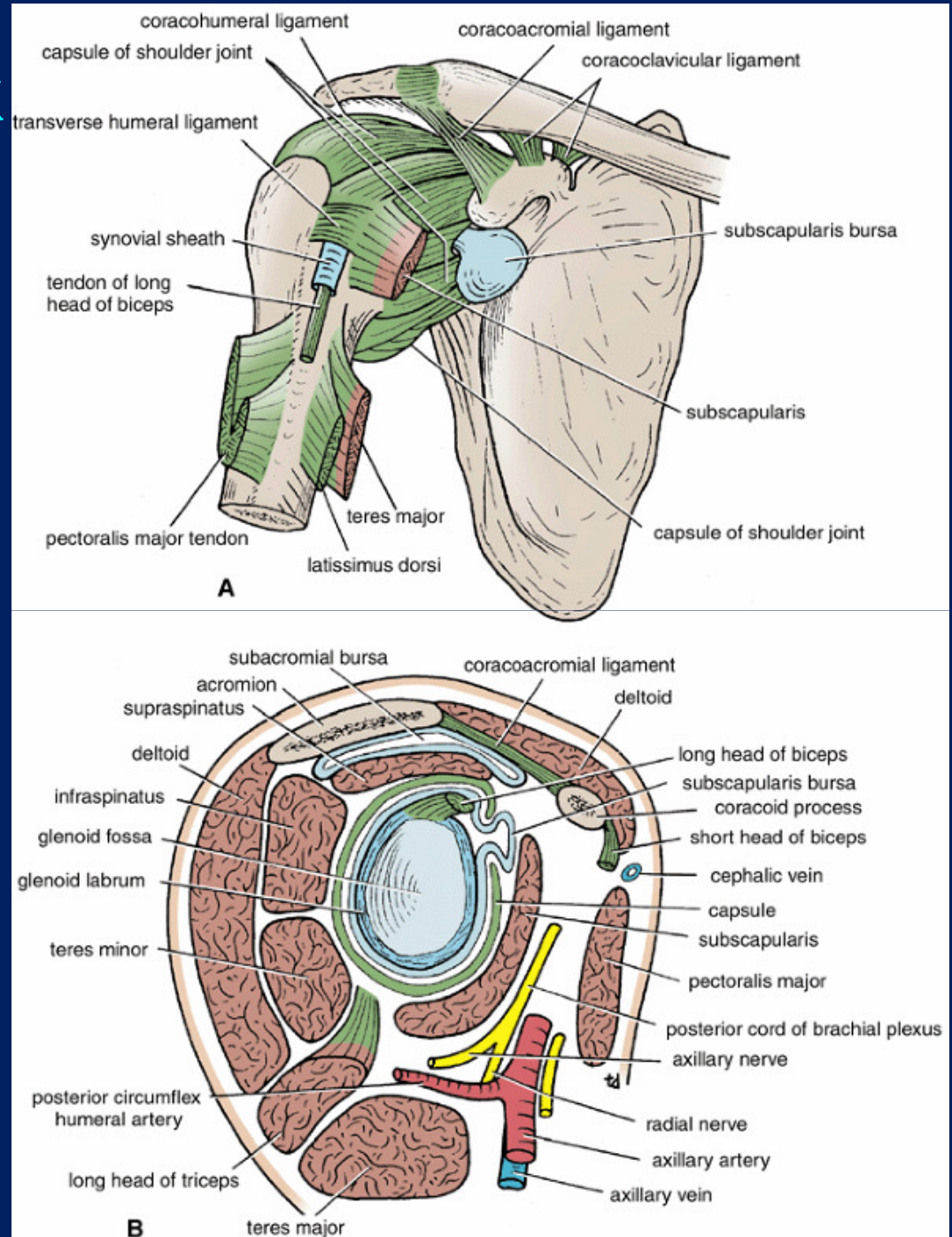
The first and eighth cervical nerves do not supply skin and posterior rami of upper three lumbar nerves run downward to supply skin over the buttock.

- The **blood supply** to the skin is from the posterior branches of the posterior intercostal arteries and the lumbar arteries. The veins correspond to the arteries and drain into azygos veins and inferior vena cava.
- The **lymph drainage** of the skin of the back above the level of the iliac crests is upward into the posterior group of axillary lymph nodes.

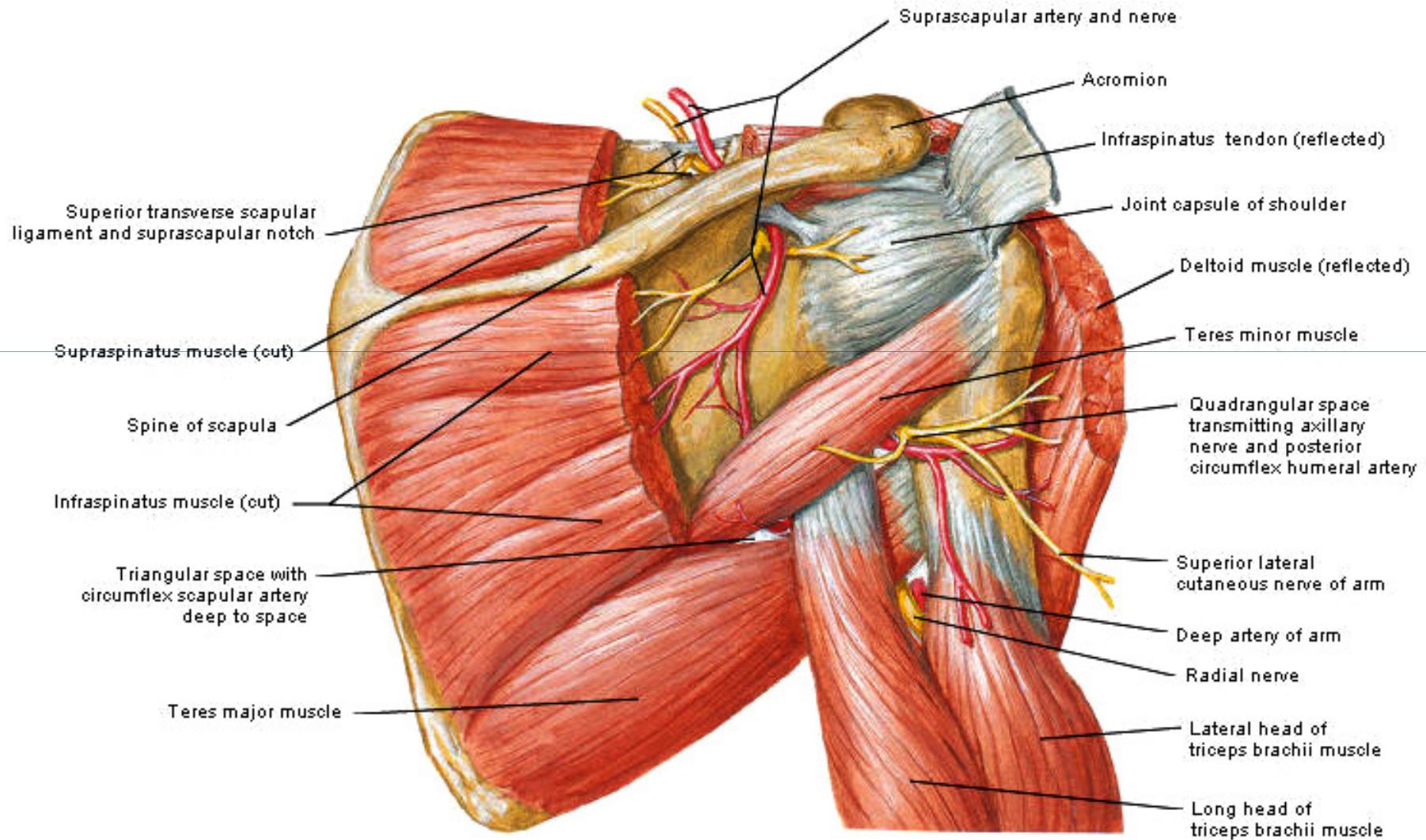
❖Bones of the Back

❖Muscles

Rotator Cuff



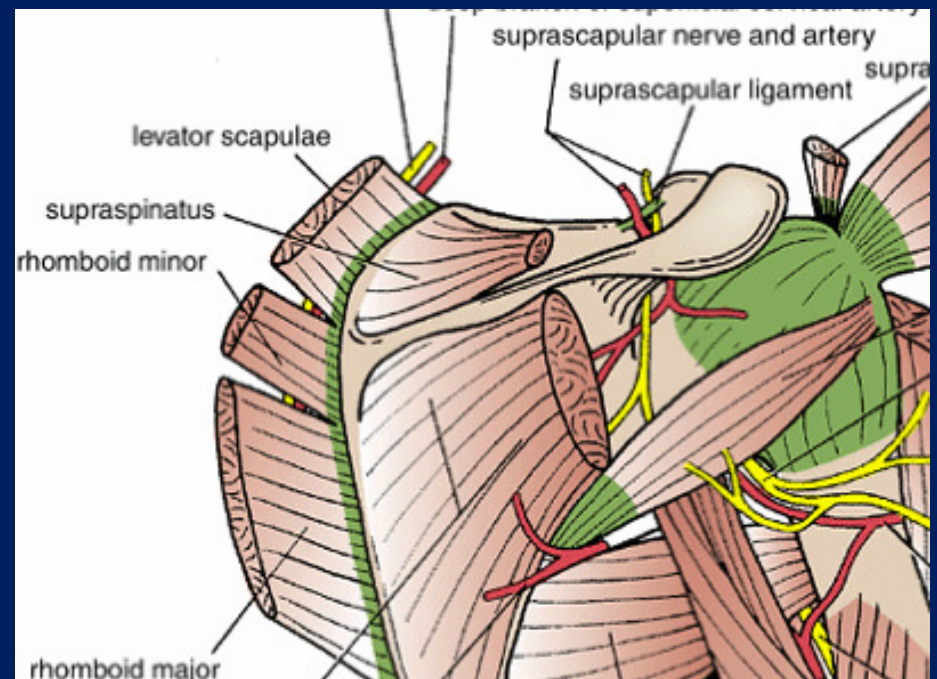
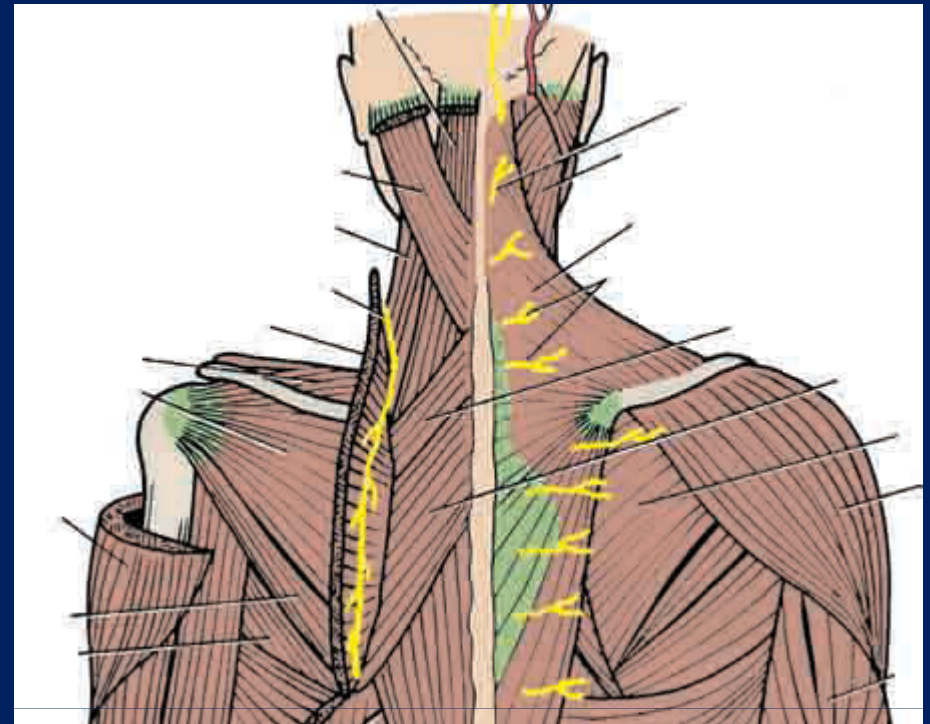
QUADRANGULAR SPACE



Nerves

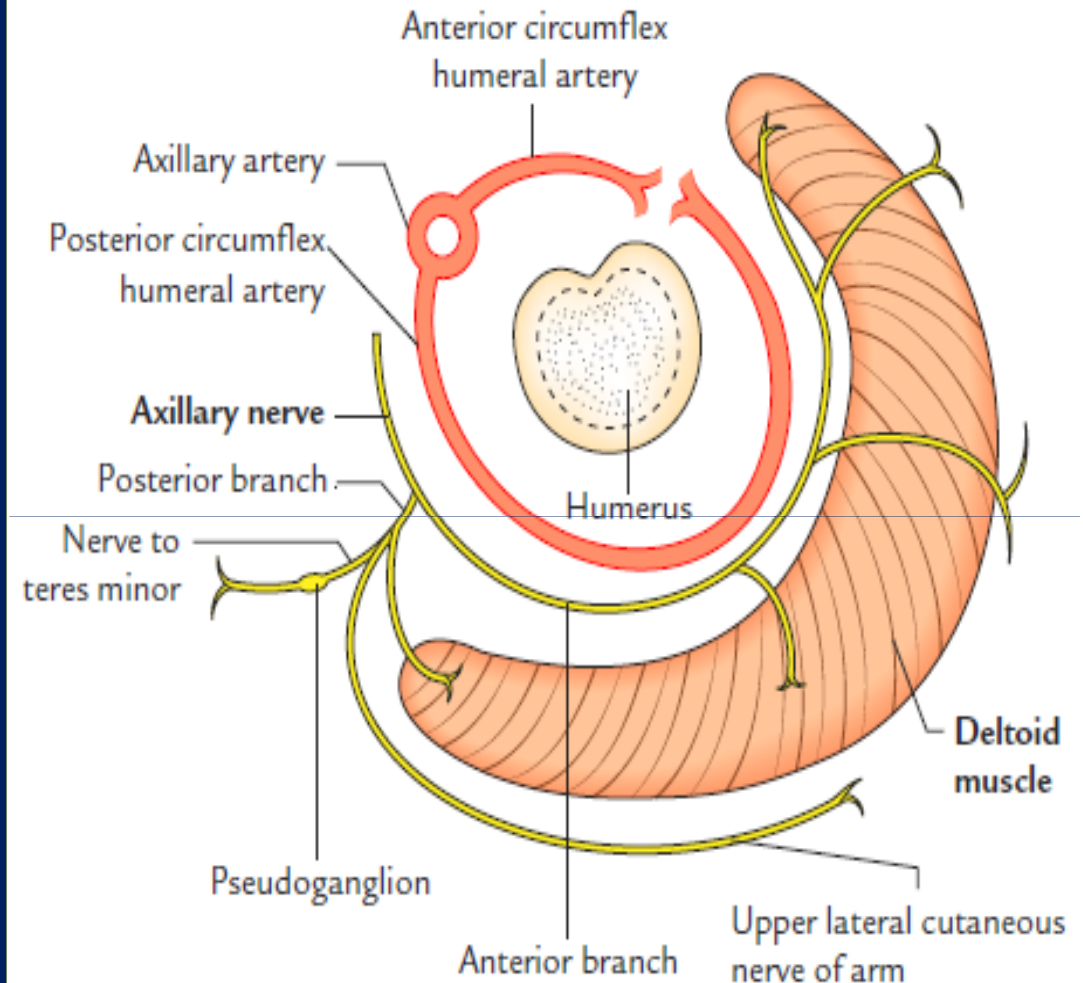
- Spinal Part of the Accessory Nerve (Cranial Nerve XI)

- Suprascapular Nerve



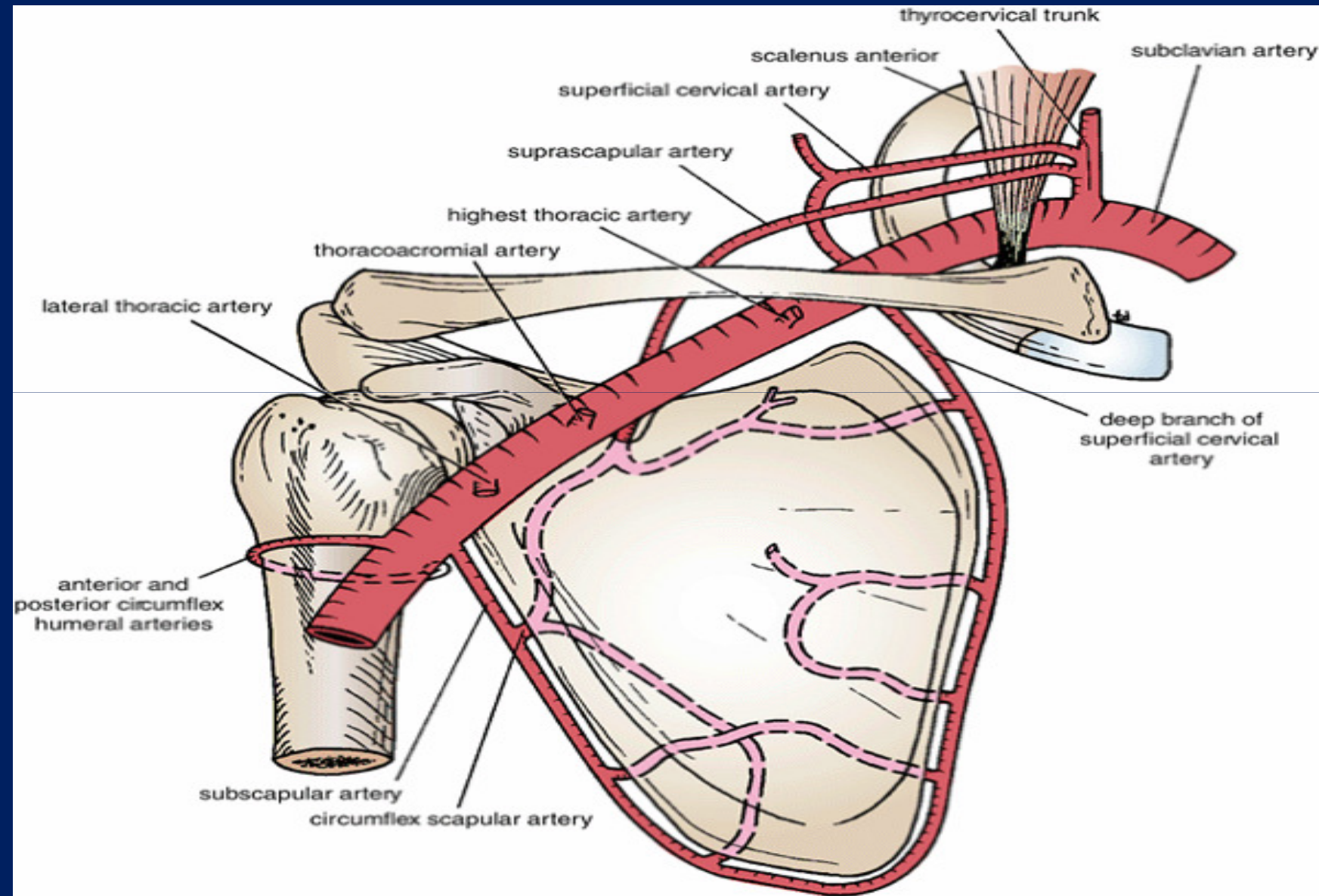
axillary nerve

- ❑ The axillary nerve arises from the posterior cord of the brachial plexus (C5 and 6) in the axilla.
- ❑ It passes backward and enters the quadrangular space with the posterior circumflex humeral artery.
- ❑ As the nerve passes through the space, it comes into close relationship with the inferior aspect of the capsule of the shoulder joint and with the medial side of the surgical neck of the humerus.
- ❑ It terminates by dividing into anterior and posterior branches.



articular branch, anterior terminal branch & posterior terminal branch.

Arterial Anastomosis around the Shoulder Joint



Thank You & Good Luck

